1.0 INTRODUCTION

The Department of Homeland Security (DHS) and the U.S. Army Garrison (USAG) of Fort Detrick are preparing this Environmental Impact Statement (EIS) for the Construction and Operation of the National Biodefense Analysis and Countermeasures Center (NBACC) Facility at Fort Detrick, Maryland on a Site Adjacent to Existing U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) Facilities (the Proposed Action). This EIS is being prepared in compliance with the National Environmental Policy Act of 1969 (NEPA), as amended (Title 42, U.S. Code, 4321-4347), and the regulations issued pursuant to the Act.

This introductory chapter of the EIS includes background information on DHS in Section 1.1, a discussion of the role of the proposed NBACC Facility in the mission of DHS in Section 1.2, a description of the NEPA procedures for the EIS in Section 1.3, a discussion of Public Participation in Section 1.4, and a review of other related documentation referenced in this EIS in Section 1.5. Chapter 2 of this EIS presents details of the Proposed Action, and Chapter 3 identifies the alternatives that were considered, including the No Action Alternative, a requirement of the Council on Environmental Quality (CEQ) regulations implementing NEPA. Chapter 4 of this EIS presents a detailed description of the environment that would be affected by the Proposed Action or the alternatives. This provides the basis for comparative analyses of the health and environmental consequences of the Proposed Action and the No Action Alternative and the selection of the Proposed Action as the preferred alternative in Chapter 5. Chapter 6 summarizes the conclusions of this EIS. Finally, this EIS includes an appendix to document the stakeholder interactions and public involvement.

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1.1 BACKGROUND

The *Homeland Security Act* (Public Law 107-296) created the DHS in accordance with the blueprint set forth in the President's *National Strategy for Homeland Security* (Office of Homeland Security, 2002). The mission of DHS, as stated in the *Homeland Security Act* is to prevent terrorist attacks within the United States, to reduce America's vulnerability to terrorism, and to minimize the damage and assist in recovery efforts from attacks that may occur. The Secretary of DHS serves as the single incident Commander to coordinate across all Federal agency responses in the event of natural disaster or use of a weapon of mass destruction against U.S. homeland interests.

DHS is comprised of five major directorates: Management, Border and Transportation Security, Emergency Preparedness and Response, Science and Technology (S&T), and Information Analysis and Infrastructure Protection, and three services, the Secret Service, the Coast Guard, and the Citizenship and Immigration Services.

The S&T Directorate, which includes NBACC, serves as the primary research and development arm of the Department, utilizing our nation's scientific and technological resources to provide Federal, state and local officials with the technology and capabilities to protect the homeland. The focus is on catastrophic terrorism - threats to the security of our homeland that could result in large-scale loss of life and major economic impact. DHS's work is designed to counter those threats, both by evolutionary improvements to current technological capabilities and development of revolutionary new technological capabilities. A key objective for DHS is to build a cohesive science program and enduring capability linking the major NBACC efforts.

The
S&T Directorate is organized into four major components: the Office of Plans, Programs and Budget; the Homeland Security Advanced Research Projects Agency; the Office of Research and Development (ORD); and the Office of Systems Engineering and Development. ORD, which includes NBACC, executes programs in research, development, testing, and evaluation; supports university and fellowship programs; and provides the nation with an enduring research and development capability dedicated to homeland security.

1.2 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The proposed NBACC Facility will provide research laboratory and office space for NBACC. The mission and overall organization of DHS is discussed in Section 1.1.

NBACC was established to integrate national resources for homeland security, drawing on resources from public health, law enforcement, and national security. NBACC is a key component in implementing the President's *National Strategy for Homeland Security* by addressing the need for substantial research into relevant biological and medical sciences to better detect, diagnose, and mitigate the consequences of biological attacks and to conduct risk assessments (Office of Homeland Security, 2002). Congress provided a total of $93 million in Department of Defense (DoD) and DHS appropriations to initiate construction of the proposed NBACC Facility.

The mission of NBACC is to provide the nation with the scientific basis for awareness of biological threats and attribution of their use against the American public by:

- understanding current and future biological threats, assessing vulnerabilities, and determining potential impacts to guide the development of biodefense countermeasures; and
- providing national capability to conduct forensic analysis of evidence from bio-crimes and terrorism to attain a "biological fingerprint" to identify perpetrators and determine the origin and method of attack.

The proposed NBACC Facility at Fort Detrick will be comprised of:

- The Biological Threat Characterization Center (BTCC), for conducting research to better understand current and future biological threats. The mission of the BTCC is to fill scientific knowledge gaps for high-consequence biological threat agents; and
- The National Bioforensics Analysis Center (NBFAC), designated in Presidential Directive *Biodefense for the 21st Century,* to be the lead Federal agency for conducting Biodefense analysis of evidence from a bio-crime or terrorist attack to attain a "biological fingerprint" to determine where the agent came from and the perpetration of the attack.

The work in these laboratories will be for defensive purposes only. The *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*, also known as the Biological and Toxin Weapons Convention or BWC, prohibits the development, production, stockpiling, and acquisition of offensive biological weapons. The United States is a signatory to this treaty, and all activities performed at the NBACC Facility will comply with this treaty and all other applicable laws.

NBFAC
directly supports the Federal Bureau of Investigation (FBI) and other Federal agencies in scientific assessment of biological materials leading to attribution of use and legal proceedings. The FBI has primacy in the mission to collect, analyze and document a legal case from events related to criminal misuse of biological pathogens and biotoxins. The capability of the NBFAC to conduct and facilitate integrated and coordinated analyses of evidentiary samples potentially containing or contaminated with high consequence biological threat agents requiring Biosafety Level[1] (BSL)-3 or BSL-4 containment is critical to national security (Adams, 2004).

NBACC's threat validation, threat characterization, and forensics missions require laboratory facilities rated at BSL-4 to conduct studies with disease-causing microbes which spread through the air or have an unknown cause. However, existing biocontainment facilities (both commercial and governmental) in the United States are lacking in capacity, capability, and flexibility to satisfy NBACC's mission requirements. There is not enough BSL-4 laboratory space available nationwide to support NBACC's planned laboratory and animal biodefense research studies and bioforensic casework. There are four existing operational BSL-4 laboratories in the U.S.:

- The USAMRIID operates BSL-3 and BSL-4 laboratories and animal facilities at Fort Detrick, MD in support of its mission to provide effective medical defenses against biological threats facing U.S. forces on the battlefield.
- The Centers for Disease Control and Prevention (CDC) in Atlanta, GA BSL-4 laboratories are dedicated for vaccine research and virology in support of its mission to promote health and quality of life by preventing and controlling disease, injury, and disability.
- The Southwest Foundation for Biomedical Research, a privately-owned facility in San Antonio, TX, operates BSL-4 laboratories and animal facilities in support of sponsored virology and immunology research programs, and the
- The University of Texas Medical Branch in Galveston, TX recently has begun operations in new BSL-4 laboratories, which are committed to sponsored virology research.

These existing laboratories as well as those planned by the National Institutes of Health are committed to other programs. The National Institute of Health's (NIH) National Institute of Allergy and Infectious Diseases (NIAID) Integrated Research Facility (IRF) at Fort Detrick will consist of BSL-2, 3, and BSL-4 space that will focus on understanding the disease process of select agents and other emerging infections in order to improve clinical outcomes.

Critical characteristics for the location of the proposed NBACC Facility, which are essential to satisfying the mission requirements of NBACC, are as follows:

- Location in or near the National Capital area: To ensure forensic quality (e.g., control of custody and rapid processing) for customers of the NBFAC, the NBACC Facility must be located within a convenient local distance to the headquarters of other Federal government agencies and to other assets for biodefense, such as the FBI Hazardous Materials Response Unit Laboratory at Quantico, VA. A location that is accessible via ground transportation within a 100-mile (two-hour) driving distance from Quantico, VA and within a 60-mile (one-hour) distance from Washington, DC is considered essential to satisfy mission requirements.

[1] "Biosafety levels" is a system of well-defined safety procedures, equipment, and facilities in the laboratory environment established to minimize risk of exposure to potentially hazardous agents for laboratory workers and the outside environment (CDC/National Institutes of Health (NIH), 1999). See Sections 2.3.4.1 and 2.3.4.2 of this document

- Flexibility in the event of national emergency: Co-location with existing BSL-3 and BSL-4 laboratories and associated existing specialized supporting infrastructure for biocontainment facility operations may be required to accomplish DHS mission objectives.

- Synergy: NBACC will join other Federal laboratories at Fort Detrick, USAMRIID, and the future NIAID IRF. Although each facility will be implementing part of its agency's overall biodefense program, all will be contributing to a common understanding and knowledgeable base that could be shared across the organizations.

- Areas of potential synergy include:

    * Opportunities for scientists from the NBACC Facility and other co-located Federal laboratories to work as collaborators in each other's facilities to develop joint or collaborative projects, leveraging scientific expertise for each of the programs;
    * Greater opportunities for use of specialized equipment for aerosol studies and potentially for unique imaging studies;
    * Increased likelihood of partnering and/or providing a scientist exchange / sabbatical program where scientists from other DHS laboratories would spend time with scientists from the NBACC Facility and, potentially, other co-located Federal labs; and
    * Options to conduct particularly large sample size studies or for multi-prong studies in animal models for BSL-3 or BSL-4 agents.

- Potential cost savings: When these types of specialized facilities are located in close physical proximity, sharing of services is possible in areas such as Occupational Health, local committee for standards of practice in biodefense / biosurety, common management of waste streams, Special Immunization Programs for occupationally required vaccines, and repair / maintenance of biocontainment facilities and equipment.

1.3 NEPA REVIEW PROCESS

This EIS has been prepared in accordance with requirements of the NEPA of 1969, regulations of the CEQ (40 Code of Federal Regulations [CFR] 1500-1508) and Army Regulation (AR) 200-2, *Environmental Analysis of Army Actions* (32 CFR 651), 29 March 2002. The U.S. Army, as owner of the site of the proposed NBACC Facility, is a Cooperating Agency in this EIS.

The proposed NBACC Facility and its potential impacts on the environment were analyzed in the context of what can reasonably be expected to happen under specific circumstances or can be forecasted, given existing knowledge and application of scientific methodology, based on the types of activities to be conducted within the new facility, past occurrences at similar facilities, and available control measures.

The analyses considered environmental, health, and socioeconomic attributes, as follows: Land Use, Climate, Geology, Soils, Water Resources, Wetlands, Plant and Animal Ecology, Air Quality, Historic and Cultural Resources, Socioeconomic Environment, Noise, Odors, Transportation, Energy Resources, Pollution Prevention and Waste Management, Public Opinion, and Security. Section 4 describes the existing environmental conditions within and around Fort Detrick, the site of the proposed NBACC Facility for each of these environmental

attributes. The potential impacts of the Proposed Action and other reasonable alternatives on these attributes are then analyzed in Section 5.

1.4 PUBLIC PARTICIPATION

1.4.1 SCOPING ACTIVITIES

On 07 June 2004 DHS published in the Federal Register its intent to prepare an EIS on the proposed NBACC Facility at Fort Detrick (see Appendix A). The Notice of Intent (NOI) also was published in local newspapers on the same date or in the next available issue. In addition, copies of the NOI were mailed to stakeholders and potentially interested members of the public, and the NOI appeared in the local newspapers during the week preceding the Public Scoping Meeting discussed below. The distribution list and copies of the information package appear in Appendix B.

Publication of the NOI initiated DHS's scoping activities. The scoping process is intended to assist in identifying issues and alternatives germane to the EIS and to afford opportunities for meaningful input to stakeholders, potentially affected government agencies, and the public. Information packages were disseminated to elected officials, local, state and Federal government agencies, and to members of the public.

DHS conducted a Public Scoping Meeting at the Frederick Community College in Frederick, Maryland, on 22 June 2004. A transcript of this meeting, including presentations by DHS staff and statements by members of the public, appears in Appendix C.

1.4.2 SCOPING COMMENTS

Eighteen members of the public provided comments during the 30-day public scoping period. Fourteen persons spoke at the Public Scoping Meeting, and four of them subsequently submitted written comments. Four others also submitted written comments. Several of these commenters had more than one comment. Appendix D (Scoping Comments and Responses) includes copies of the original written comment emails and letters and the Public Meeting transcript pages for oral comments, along with the DHS response.

Twelve commenters expressed concern for general environmental issues and potential operational hazards of the proposed NBACC Facility. The general environmental concerns included socioeconomic impacts, traffic, air quality, waste disposal, radioactive materials, impacts on groundwater, cumulative impacts, firefighting water, water supply main failure, and low-impact development. Concerns with potential hazards included physical security, risk assessment, biosurety, containment procedures and measures, shipment of hazardous materials, human health and safety, contingency plans and emergency response, emergency power, animal care and use, and genetically engineered microorganisms. In addition, five commenters related other concerns regarding the proposed NBACC Facility, including duplication of mission with other agency programs, the ongoing research agenda, and oversight mechanisms.

Eleven persons expressed opposition on generalized grounds, questioning the purpose and need for the proposed NBACC Facility and/or potential compliance with provisions of the Biological Weapons Convention.

1.4.3 DRAFT EIS (DEIS) COMMENTS AND REVISIONS

In accordance with NEPA regulations and DoD procedures, copies of this DEIS have been sent to the U.S. Environmental Protection Agency (USEPA), elected officials; local, state, and Federal government agencies; and to members of the public. The Distribution List for the DEIS appears in Appendix B (Distribution List and Information Package).

The Public Comment period on the DEIS begins on the date of publication by the USEPA of the Notice of Availability (NOA) for the DEIS in the Federal Register, listing it in its weekly report of EISs filed the preceding week. A separate NOA, containing an announcement of the DEIS Public Information Meeting, will be published in local newspapers on the same date or in the next available issue. In addition, publication of the NOA in local newspapers will be repeated during the week preceding the Public Meeting. Copies of the DEIS will be provided for all members of the public who request one following publication of the NOAs.

DHS will conduct a Public Meeting on the conclusions of the DEIS approximately 20 days after the publication of the NOA for the DEIS. The meeting, which will include an opportunity at the end of the session for informal discussion with DHS and USAG personnel, will be held at a location to be announced in Frederick, Maryland. An information packet will be distributed to the members of the public attending this meeting, and a transcript of the meeting will be prepared.

DHS will consider and respond to comments on the DEIS provided at the Public Information Meeting and to written comments received during the 45-day public comment period. In the Final EIS (FEIS), Appendix H (Public Review of the DEIS) will include copies of the original written comment emails and letters and the Public Meeting transcript pages for oral comments, along with the DHS response. All those who commented on the DEIS will receive a copy of the FEIS.

1.5 OTHER RELATED NEPA DOCUMENTATION

To reduce redundancy with previous, relevant documents, CEQ regulations encourage agencies to eliminate repetitive discussions and to focus the decision process on the pertinent issues “ripe for decisions at each level of environmental review” (40 CFR 1502.20). This approach refers to the coverage of general matters in broad-scope documents, with subsequent narrower-scope documents incorporating by reference the general discussions and concentrating primarily on the specific issues associated with the current proposal (40 CFR 1508.28).

This EIS is based, in part, on earlier NEPA documentation. This approach entails referencing specific analyses, discussions, and conclusions of these documents without providing detailed discussion in the present EIS. Consistent with CEQ guidance, the following NEPA studies relevant to Fort Detrick are incorporated by reference:

- *Final Programmatic Environmental Impact Statement, Chemical and Biological Defense Program* (U.S. Army Medical Research and Materiel Command [USAMRMC], 2004);
- *Final Environmental Impact Statement for the Construction and Operation of an Integrated Research Facility by the National Institutes of Health at Fort Detrick, Maryland* (NIH and USAG, 2003);

- *Environmental Assessment, Installation Master Plan for Fort Detrick, Maryland* (USAG, 2003a);
- *Environmental Assessment for the Construction and Operation of an Animal Facility (AF) on Area A - Fort Detrick, Maryland* (USAMRMC, 2002);
- *Environmental Assessment of U.S. Army Medical Research Institute of Infectious Diseases* (USAMRMC, 2001); and
- *Environmental Assessment for the Construction of Two Sterilization Facilities, Conversion and Abandonment of the Laboratory Sewer System, and Deactivation of the Steam Sterilization Plant* (USAG, 1997).

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